SECTION 1: Introduction

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Introduction

1. Introduction

RISO, the world leader in the development of digital duplicating technology, is pleased to introduce sequential numbering on demand with the NC Numbering System.

Used in tandem with the Risograph, the NC Numbering System provides quick and easy sequential numbering on preprinted applications and the versatility to configure your job exactly how you want. It has room for up to 12 vertical or horizontal heads, prints in red or black inks, and can imprint up to seven digits. This speedy, reliable, and easy to use accessory is a great way to enhance the productivity of your Risograph. Imagine, now you can sequentially number forms, tickets, tags, pads, coupons, even envelopes -- all in-house, all under your own control!

This manual contains important information about the installation, use, adjustment, parts, and maintenance of your new numbering system and is intended to be your complete reference source after you have received proper training from a certified RISO technician. It is not intended to be used as a self-training tool.

2. Model Compatibility

There are two versions of the NC Numbering System. The NC-001 is for use with ledger or A3 GR Series Risographs only. The NC-002 is for use with legal or B4 GR Series Risographs only.

NC-001

GR3770
GR377
GR3770 A3

GR3750
GR375
GR3750 A3

GR170
GR1700 B4

NC-002

GR2750
GR275
GR2750 B4

GR1750
GR175
GR1750 B4

GR2710
GR271
GR2710 B4

GR1700

3. A Few Words About Numbering

Numbering operations are an important but often ignored part of the printing world. Until now, there were four main ways of numbering documents:

- Hand-held numbering machines
- Off-line, table-top automatic numbering machines
- In-line press attachment numbering machines
- Stand-alone letterpress numbering presses

Hand-held numbering machines, though the least expensive, are useful only when numbering a very small quantity of sheets.

The table-top, off-line systems are basically hand-held machines that were made automatic by adding a feeding system, cam, and motor. These systems are often unreliable with costs approaching press attachment numbering system units.

In-line press attachment numbering machines are flexible and very reliable. They allow you to number as you print, eliminating steps in the production process. However, they require the use of skilled labor and, combined with longer set-up times, require a larger production volume in order to be cost effective.

Stand-alone letterpress numbering systems represent the ultimate solution to numbering needs. These dedicated machines are very expensive, require skilled labor and, therefore, are the most appropriate for high-volume numbering needs.

The NC Numbering System fits between off-line, table-top numbering machines and on-line press numbering attachments. For a much lower price than the table-top or off-line machines, the NC Numbering System offers reliability, flexibility, and ease of use.

Coupled with the Risograph Digital Duplicator, the numbering system provides quick set-up and fast production. Some applications include tickets, forms, pads, invoices, and envelopes.

4. Types of Numbering Heads

Numbering heads print up to seven digits and may be used with black or red ink. The user is able to depress up to three digits in order to print numbers with as few as four digits. There are four different numbering heads and up to 12 heads can be installed per print application for complete versatility.

Straight and Convex
There are two categories of numbering heads: Horizontal Straight and Vertical Convex. Straight numbering heads imprint numbers horizontally and Convex numbering heads imprint vertically.

> **Note:** You cannot put a Horizontal Straight numbering head on the same Head holder ring as a Vertical Convex numbering head.

Backward and Forward
The most common numbering heads, referred to as backward numbering, are those that number decrementally (ex. 0999, 0998, 0997, 0996, 0995, etc.). There are also those that number incrementally, known as forward numbering (ex. 0991, 0992, 0993, 0994, 0995, etc.). With the printing range from 0000001 to 9999999, number 0000001 is the first number printed and 9999999 is the last number printed. With the printing range from 9999999 to 0000001, number 9999999 is the first number printed and 0000001 is the last number printed.

Repeat Wheels
Some special applications require the same number to be printed repeatedly such as multiple copies of carbonless forms. In these cases, Repeat wheels are needed. These special wheels replace a wheel on the Numbering head and will increment the Numbering head every X activations. This wheel may repeat up to six activations. (Example of repeat wheel of two: 991, 991, 992, 992, 993, 993, etc.).

Skip Wheels
There are some applications that require numbers to be skipped, for example, you may only need even numbers. Skip wheels are installed to enable the Numbering head to skip X numbers (ex. 992, 994, 996, 998, etc.).

Designation Blocks
Designation blocks, used in conjunction with a polymer plate, enable you to imprint logos or special messages while printing numbers. Applications include corporate logos, symbols, and addresses. Designation blocks can be purchased through RISO Customer Service. Polymer plates can be purchased at any graphic arts store.

In order to let you take advantage of the combination that suits your needs best, Numbering heads, Repeat wheels, Skip wheels, and Designation blocks are purchased separately from the numbering cylinder.

The following chart illustrates the parts needed for adding Numbering heads to the cylinder. Each numbering system is shipped with the quantity of each part listed below. Additional quantities can be purchased through RISO Customer Service.

Part No.	Part Name	Qty.
S-8960	Ink Roller Assembly (Red)	3
S-8961	Ink Roller Assembly (Black)	3
S-8950	Tripping Cam Assembly	1
S-8951	Head Holder Ring Assembly	1
S-8981	Numbering Head Horizontal-Straight Forward	*
S-8980	Numbering Head Horizontal-Straight Backward	*
S-8983	Numbering Head Vertical-Convex Forward	*
S-8982	Numbering Head Vertical-Convex Backward	*